

Amendments to the Specification

Please replace the paragraph beginning at line 5 on page 6 of the specification with the following amended paragraph:

For a given w_{in} and w_{out} , the free parameters in the taper shape are L and p. For different p values, the taper shape changes. This is illustrated in Figs. [6(a) to (c)] 7(a) to (c) which show the taper shape for p=0, p=0.5 and p=1, respectively. L and p are chosen so that the phase difference between the zero and second order modes, at the output end 23 of the non-adiabatic taper, is equal to an odd multiple of π (e.g. π , 3π , 5π ... etc.). This gives a straight phase front which will reduce coupling losses to the output waveguides 24, 26. π is the preferred value as this will give the shortest taper length. Beam Propagation Mode (BPM) simulations are used to choose the optimum values for the variables in the splitter design (including to calculate the required value of p and L in order that the aforementioned phase condition is met by the non-adiabatic taper 22), so as to obtain a splitter design giving optimum performance in terms of the required specifications of the end device, in particular the insertion loss of the splitter.

///